



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,383	12/28/2000	Arlin R. Davis	219.39280X00	5583
7590 11/10/2004				
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER NGUYEN, HANH N	
			ART UNIT 2662	PAPER NUMBER
DATE MAILED: 11/10/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/749,383

**Applicant(s)**

DAVIS, ARLIN R.

**Examiner**

Hanh Nguyen

**Art Unit**

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Application filed on 07/06/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 11-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-10, 19 and 21 are rejected under 35 USC 103(a) as being unpatentable over **Slemmer et al.** (US Pat. No. 6,377,990 B1) in view of **Shah et al.** (US pat. No. 6,694,361 B1).

In claims 1-4, 6, 10, 19 and 21, **Slemmer et al.** discloses, in Fig.1, an ethernet work station 16 (a remote peer node) attempts to determine MAC address of an Ethernet gateway 11 (a first node). The work station 16 (remote peer node) broadcasts an address resolution protocol (ARP) message containing its IP address (logical address), its ethernet address (local ID of remote node) and the IP address whose ethernet address is being sought, i.e., the IP address associated with gateway 11 (receiving at a first node local identifier of one remote peer node). The ethernet driver at gateway 11 maps its IP address with the received ARP message to determine its ethernet MAC address associated with the gateway 's IP address, and sends the ethernet address to the work station 16 (mapping the logical address to the MAC address and sending the MAC address to the remote node). See col.4, lines 25-50. Since network adapters are ethernet adapters, therefore, the work stations are connected to the ethernet network 20 (remote peer node resides in ethernet network). **Slemmer et al.** does not disclose the network 20 is an

Art Unit: 2662

infiniband fabric; and infiniband LAN driver located at a first node. **Shah et al.** discloses, in Fig.6, an infiniband subnetwork 600 (infiniband fabric, col.7, lines 1-10) wherein a Lan emulation driver 704 located in a host 1( see Fig.7) ( IB LAN driver at a first node) is assigned at a port a local ID to route messages from source port to destination port in the fabric (see col.8, lines 33-50). Therefore, it would have been obvious to one ordinary skill in the art to substitute the network 20 of Slemmer et al. by the Infiniband fabric and implement LAN emulaion driver into hosts of **Slemmer et al.** to perform Lan emulation over infiniband fabric by mapping transmitted IP address with the returned Mac address.

In claims 7-9, **Slemmer et al.** discloses the ethernet address is obtained by broadcasting, multicating, ARP message address to nodes coupled to network 20. An addressed gateway replies its Mac address to the node 16.

Claims 5, 6, 20 and 22 are rejected under 35 USC 103(a) as being unpatentable over **Slemmer et al.** (US Pat. No. 6,377,990 B1) in view of **Shah et al.** (US pat. No. 6,694,361 B1), and further in view of Cox et al. (Pat. 6,172,981 B1).

In claims 6 and 20, **Slemmer et al.** does not disclose the ethernet address comprises 48 bits, of which local ID comprises 16 bits. Cox et al. discloses that the MAC address comprises 48 bits. See col.4, lines 25-30. It is a well-known skill in the art that the 48 bits of ethernet address comprises 16 bits used for local ID. Therefore, it would have been obvious to one skill in the art to map 16 local ID bits in the MAC address of Slemmer et al. with the IP address to return Mac address to the node 16.

In claims 5 and 22, **Slemmer et al.** discloses IP address transmitted through network 20 (TCP/IP), but does not disclosethe network protocol comprises netware, OSI, DECnet aand

Art Unit: 2662

ApleTalk. Cox et al. discloses IP is implemented in network layer of OSI model ( network protocol comprises OSI). See col.4, lines 10-20. However, it is a wellknown skill in the art to use any of the netware, DECnet and ApleTalk because they are compatible.

### ***Allowable Subject Matter***

Claims 11-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 11, the prior art does not disclose transport service library (TSL) providing connection management, work queue management, memory management, and message pool management, the IB lan driver using the TSL to establish a connection with and perform transfers to the at least one remote peer node.

In claim 12, the prior art does not disclose the IB bus driver receiving each LID and a LID mask for each LID from the IB lan driver once the port is activated and assigning one LID to each at least one port.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-10 and 19-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rodrig et al. (US Pat. No. 6,256,314 B1) discloses Apparatus and Methods for Routerless Layer-3 Forwarding in a Network.

Furuhashi et al. (US Pat. No. 6,411,625 B1) discloses ATM-LAN Network Having a Bridge that Establishes Communication with or without LAN Emulation protocol depending on Destination Address.

Ortega et al. (US pat. No. 6,711,162 B1) discloses Method and Apparatus for Providing Proxy service, route selection, and protocol conversion for service endpoints within data networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 703 306-5445. The examiner can normally be reached on Monday-Friday from 8AM to 5PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on 703 305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

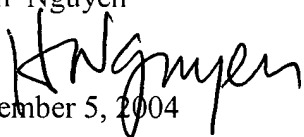
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2662

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

November 5, 2004

A handwritten signature in black ink, appearing to read 'HNguyen', is written over the printed name and date.